

## REMARKS

This is intended as a full and complete response to the Office Action dated July 6, 2006, having a shortened statutory period for response set to expire on October 6, 2006. Please reconsider the claims pending in the application for reasons discussed herein.

Claims 29-30, 39-45, and 49-85 remain pending in the application after entry of this response. Claims 31-32, 37-38, and 46-48 have been cancelled, and claims 53-63 have been added. Claims 31, 38, 39, and 47-52 stand objected to by the Examiner. Claims 38, 49, and 52 have been rewritten in independent form as claims 29, 57, and 63. Reconsideration of the rejected claims is requested for reasons presented below.

### ***Information Disclosure Statement***

Applicants appreciate the Examiner's consideration of the filed information disclosure statements ("IDS"). A review of the IDS considered by the Examiner reveals that the IDS filed on April 12, 2005 was not considered. That IDS was not listed on the "transaction history" of the USPTO PAIR system. Applicants have attached a copy of that IDS and the associated return postcard showing the IDS was received by the patent office on April 15, 2005. Applicants respectfully request consideration of the IDS.

### ***35 U.S.C. § 102***

Claims 29, 30, 37, 42, and 46 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Glowka* (US 5,343,968).

Claim 29 has been amended to include the limitations of allowable claim 38. Therefore, Applicants believe claim 29 is in condition for allowance.

*Glowka* discloses an apparatus for simultaneously and separately placing two streams of different materials through a drill string in a borehole. The two streams mix together below the drill bit 14 as they flow into the loss zone in the formation below the drill string 1, thereby starting a chemical reaction that hardens the cement. (See, col. 6, lns. 61-66). *Glowka* does not teach, show, or suggest providing a sleeve positioned over an element of the drill string and intermediate the at least one secondary passage

and the annulus and at least one shear element interconnecting the sleeve to the element of the drill string, as recited in new claim 53.

Because *Glowka* discloses mixing below the drill string, *Glowka* does not teach, show, or suggest allowing the physically alterable bonding material to harden in the annulus between the drill string and the borehole, as recited in new claim 60.

Further, *Glowka* does not teach, show, or suggest positioning a one way valve intermediate a location where the physically alterable bonding material is introduced into the interior of the drill string and the at least one second passage, as recited in new claim 61.

Further, *Glowka* does not teach, show, or suggest drilling through at least a portion of the earth removal member, as recited in claim 72.

Further, *Glowka* does not teach, show, or suggest milling at least a portion of the earth removal member, as recited in claim 79.

Further, *Glowka* does not teach, show, or suggest a rupturable barrier blocking fluid communication through the at least one secondary fluid passage, as recited in claims 80 and 84. Therefore, Applicants believe the claims are in condition for allowance and respectfully request allowance of the same.

Claims 29, 30, 32, 37, 40, 41, 42, 43, and 46 stand rejected under 35 U.S.C. § 102(e) as being clearly anticipated by *Runia, et al.* (US 2004/0238218).

Claim 29 has been amended to include the limitations of allowable claim 38. Therefore, Applicants believe claim 29 is in condition for allowance.

*Runia* discloses a drill bit having a removable closure element and a fluid injection tool for removing the closure element and introducing fluid into the borehole. *Runia* discloses stopping the cement when the top of the cement reaches the level of the face of the bit body. (See, para. [0058]). The fluid injection tool is retracted when the cement has sufficiently hardened. (See, para. [0059]). *Runia* does not teach, show, or suggest providing a sleeve positioned over an element of the drill string and intermediate the at least one secondary passage and the annulus and at least one shear element interconnecting the sleeve to the element of the drill string, as recited in new claim 53.

*Runia* does not teach, show, or suggest allowing the physically alterable bonding material to harden in the annulus between the drill string and the borehole, as recited in new claim 60.

Further, *Runia* does not teach, show, or suggest positioning a one way valve intermediate a location where the physically alterable bonding material is introduced into the interior of the drill string and the at least one second passage, as recited in new claim 61.

Further, *Runia* does not teach, show, or suggest drilling through at least a portion of the earth removal member, as recited in claim 72.

Further, *Runia* does not teach, show, or suggest milling at least a portion of the earth removal member, as recited in claim 79.

Further, *Runia* does not teach, show, or suggest a rupturable barrier blocking fluid communication through the at least one secondary fluid passage, as recited in claims 80 and 84. Therefore, Applicants believe the claims are in condition for allowance and respectfully request allowance of the same.

### **35 U.S.C. § 103**

Claims 29, 30, 32, 37, and 40-46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Lee* (US 2004/0011566) in view of *Runia, et al.* '218 or *Glowka* '968.

*Lee* discloses a bypass tool in a drill string for diverting drilling mud from flowing through a housing to a bypass port. *Lee* also discloses discharging lost circulation material such as woodchips into the formation and thereafter, continuing pumping drilling mud into the casing. *Runia* and *Glowka* are discussed above. The references, neither alone nor in combination, teach, show, or suggest providing a sleeve positioned over an element of the drill string and intermediate the at least one secondary passage and the annulus and at least one shear element interconnecting the sleeve to the element of the drill string, as recited in new claim 53.

Also, the references, neither alone nor in combination, teach, show, or suggest allowing the physically alterable bonding material to harden in the annulus between the drill string and the borehole, as recited in new claim 60.

Further, the references, neither alone nor in combination, teach, show, or suggest positioning a one way valve intermediate a location where the physically alterable bonding material is introduced into the interior of the drill string and the at least one second passage, as recited in new claim 61.

Further, the references, neither alone nor in combination, teach, show, or suggest drilling through at least a portion of the earth removal member, as recited in claim 72.

Further, the references, neither alone nor in combination, teach, show, or suggest milling at least a portion of the earth removal member, as recited in claim 79.

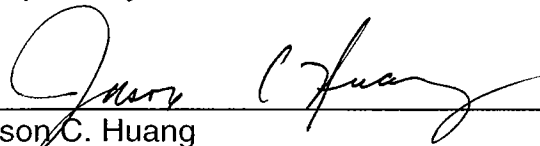
Further, the references, neither alone nor in combination, teach, show, or suggest a rupturable barrier blocking fluid communication through the at least one secondary fluid passage, as recited in claims 80 and 84. Therefore, Applicants believe the claims are in condition for allowance and respectfully request allowance of the same.

### ***Conclusion***

The references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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